



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/600,593	07/19/2000	Christian Lutz	1959/49027	5222

7590 01/24/2003

Evenson McKeown Edwards & Lenahan  
1200 G Street NW Suite 700  
Washington, DC 20005

EXAMINER

BINDA, GREGORY JOHN

ART UNIT	PAPER NUMBER
----------	--------------

3679

DATE MAILED: 01/24/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/600,593

Applicant(s)  
Lutz

Examiner  
Greg Binda

Art Unit  
3679



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Dec 4, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 20-37, 39-41, 44-46, and 48-56 is/are pending in the application.
- 4a) Of the above, claim(s) 22, 24, 26, 28, 31-35, and 51-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20, 21, 23, 25, 27, 29, 30, 36, 37, 39-41, 44-46, 48-50, and 56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Jul 19, 2000 is/are a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on Dec 4, 2002 is: a) ☐ approved b) ☒ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

Art Unit: 3679

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

*Continued Examination Under 37 CFR 1.114*

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on Dec 4, 2002 has been entered.

*Election/Restriction*

3. Claims 22, 24, 26, 28, 31-35 & 51-55 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election of Species I (Figs. 1-3) was made **without** traverse in Paper No. 11.

*Drawings*

4. The corrected or substitute drawings were received on Dec 4, 2002. These drawings are disapproved because:

a. The drawing sheet including Fig. 3 fails to include Fig. 3a. See the drawing changes filed May 29, 2001.

Art Unit: 3679

b. The drawing sheet including Fig. 3b includes a figure that is not included in the brief description of the drawings.

5. The drawings are objected to as failing to comply with:

a. 37 CFR 1.83(a) because the drawings do not show structure corresponding to the following claim limitations:

i. Claim 41: “the slide bushing is resiliently held by the socket”

ii. Claim 45: “the bushing is resiliently disposed in the socket”

b. 37 CFR 1.84(h)(5) because Figure 3 shows modified forms of construction in the same view. See “In the bottom half [of Fig. 3] another variant of the tumbler sleeve mounting is shown” on page 10, line 11. (This objection would have been overcome if the corrected or substitute drawings received on Dec 4, 2002 had been approved.)

6. The drawings are objected to because the socket 7 shown in the upper half of Fig. 3 does not appear to be “resiliently pivotally” mounted to the shaft end 2 as recited in claims 20 & 44. This is so because there is no radial clearance which would allow such pivoting between the flange 33 and the annular chamber 34 of the fork 6.

#### *Specification*

7. The disclosure is objected to because:

Art Unit: 3679

a. In the paragraph at the top of page 8, applicant thrice refers to shaft ends 1 & 2 as “shaft ends 2 & 3”. See the latest edition of this paragraph in the amendment filed Dec 4, 2002, Paper No. 21.

b. In the paragraph at the bottom of page 10, applicant refers to a figure, Fig. 3b, that is not included amongst the accepted drawings. See the latest edition of this paragraph in Paper No. 21. (This objection would have been overcome if the corrected or substitute drawings received on Dec 4, 2002 had been approved.)

8. The specification is objected to as failing to comply with 37 CFR 1.71 and 1.75(d)(1) because the detailed description fails to provide proper antecedent basis for the following claimed subject matter:

- a. Claim 41: “the slide bushing is resiliently held by the socket”
- b. Claim 45: “the bushing is resiliently disposed in the socket”

*Claim Objections*

9. Claims 20 & 44 are objected to because each includes a misspelling of the word, “pivotally”.

*Claim Rejections - 35 U.S.C. § 112*

Art Unit: 3679

10. Claims 41, 45, 48 & 49 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 41 recites the limitation, “the slide bushing is resiliently held by the socket” and similarly, claim 45 recites the limitation, “the bushing is resiliently disposed in the socket”. However, the drawings of the elected species do not show and the description of the elected species does not describe a resilient interface between the slide bushing 11 and socket 7. The description of the elected species does not even give a reason such a feature. (Note: Fig. 3 does show and the description at page 9, lines 18+ does disclose the socket 7 resiliently disposed (via the springs 31) in the annular chamber 34 of the fork 6. This feature corresponds to the limitation in the last lines of claim 20.)

11. Claims 20, 21, 23, 25, 27, 29, 30, 36, 37, 39-41, 50 & 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 20, lines 3 & 4 recites the limitation, “the two joints”. There is insufficient antecedent basis for this limitation in the claim since just a single joint (see “the joint in line 2) is previously recited.

b. Claim 27 recites the limitation “the bushing”. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 3679

c. Claim 29, line 2 recites "a fork". It is not clear how this fork is connected to the previously recited elements in the claim.

d. Claim 29, line 2 recites "a fork". It is not clear if this fork is included with, or exclusive of the two joints recited in claim 20, lines 3 & 4.

e. Claim 50 recites the limitation, "The joint according to claim 47". There is insufficient antecedent basis for this limitation in the claim.

*Claim Rejections - 35 U.S.C. § 101*

12. Claims 20, 21, 23, 25, 27, 29, 30, 36, 37, 39-41, 44-46, 48-50 & 56 are rejected under 35 U.S.C. 101 because the claimed invention, a "shaft universal double joint", lacks patentable utility. The only known utility of such a double joint is a constant velocity joint (see for example the third full paragraph in the second column of page 100 of *Universal Joint and Driveshaft Design Manual*). However, the claimed invention is not an operable constant velocity joint (see item 10 of the Office action mailed Jun 4, 2002, Paper No. 18). Therefore, unless applicant can identify some other utility, the claimed invention lacks patentable utility.

*Claim Rejections - 35 U.S.C. § 102*

13. Claims 20, 21, 23, 36, 40, 44 & 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Helmke, CA 604,536.

Art Unit: 3679

a. Claim 20: Fig. 7 shows a double joint with shaft ends 20, 21 fastened against rotation in the joint, these ends being held for movement in a housing 29 joining the two joints and these ends 20, 21 being joined together between the two joints by a ball joint so that a ball 10 connected to one shaft end 20, is mounted for rotation about a center point of the ball in a socket 13 of the shaft end 21 and is slidably movable in the direction of the shaft axis of the other shaft end 21, wherein the socket 13 is resiliently pivotally mounted to the other shaft end 21.

i. Claim 21: Fig. 7 shows a slide bushing 11 held by the socket 13, the slide bushing 11 being enveloped at least partially by the socket 13 and being disposed between the ball 10 and the socket 13.

(1) Claim 23: Fig. 7 shows that the resiliently pivotally mounting of the socket 13 in the other shaft end 21 includes metal springs.

ii. Claim 36: Fig. 7 shows on an inner wall of the housing 29 that an abutment structure 33 is provided for the ball and the socket.

iii. Claim 40: Fig. 7 shows the socket 13 is resiliently supported in the axial direction.

b. Claim 44: Fig. 7 shows a double joint comprising: two shaft ends 20, 21; two joints 18, 19, each shaft end 20, 21 being connected to one of the joints; a housing 29 joining the two joints 18, 19; and a socket 13 and a ball joint 10 disposed in the socket 13, the shaft ends 20, 21 being joined together between the two joints 18, 19 by the ball joint 10 and socket 13, wherein the



Art Unit: 3679

ball joint 10 is associated with the shaft end 20 and is able to rotate in the socket 13, and wherein the socket 13 is resiliently pivotally connected to the other shaft end 21.

i. Claim 46: see the rejection of claim 40 above.

14. Claims 20 & 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Curtis, US 2,024,912.

a. Claim 20: Fig. 1 shows a double joint with shaft ends 6 fastened against rotation in the joint, these ends being held for movement in a housing 19, 20 joining the two joints and these ends 6 being joined together between the two joints by a ball joint so that a ball 1 connected to one shaft end 6, is mounted for rotation about a center point of the ball in a socket 15 of the shaft end 6 and is slidably movable in the direction of the shaft axis of the other shaft end 6, wherein the socket 15 is resiliently pivotally mounted to the other shaft end (see also col. 2, line 52).

b. Claim 44: Fig. 1 shows a double joint comprising: two shaft ends 6; two joints 9, each shaft end 6 being connected to one of the joints; a housing 19, 20 joining the two joints 9; and a socket 15 and a ball joint 1 disposed in the socket 15, the shaft ends 6 being joined together between the two joints 9 by the ball joint 1 and socket 15, wherein the ball joint 1 is associated with the shaft end 6 and is able to rotate in the socket 15, and wherein the socket 15 is resiliently pivotally connected to the other shaft end 6.

Art Unit: 3679

*Claim Rejections - 35 U.S.C. § 103*

15. Claims 25 & 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Helmke in view of Bell, US 4,160,626. Helmke shows all the limitations of the claimed invention except Helmke does not expressly disclose the metal spring in the form of plate springs. In Fig. 3, Bell shows plate springs 92 and teaches in col. 4, lines 40-48, using these springs in order to provide sufficient compression. It would have been obvious to one of ordinary skill in the art to modify the double joint of Helmke by making the spring in the form of plate springs in order to provide sufficient compression as taught by Bell.

*Response to Arguments*

16. Applicant's arguments filed Dec 4, 2002 have been fully considered but they are not persuasive. Applicant argues that the practical utility of a shaft universal double joint is not limited to a constant velocity joint. However, applicant fails to provide an example or any other evidence to support this argument.

*Conclusion*

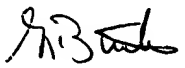
17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Robinson discloses on page 2, lines 38 a wear compensation means for a universal joint.

Art Unit: 3679

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Binda whose telephone number is (703) 305-2869. The examiner can normally be reached Monday through Thursday from 9:30 am to 7:00 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne, can be reached on (703) 308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 (before final), (703) 872-9327 (after final) and (703) 872-9325 (customer service).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.

  
**GREGORY J. BINDA**  
**PRIMARY EXAMINER**